



MORBIDITY AND MORTALITY WEEKLY REPORT

- 233 Project Graduation — Maine
- 235 Human Rabies Acquired Outside the United States
- 241 Changing Patterns of Acquired Immunodeficiency Syndrome in Hemophilia Patients — United States
- 243 Reported Measles Cases — United States, Past 4 Weeks

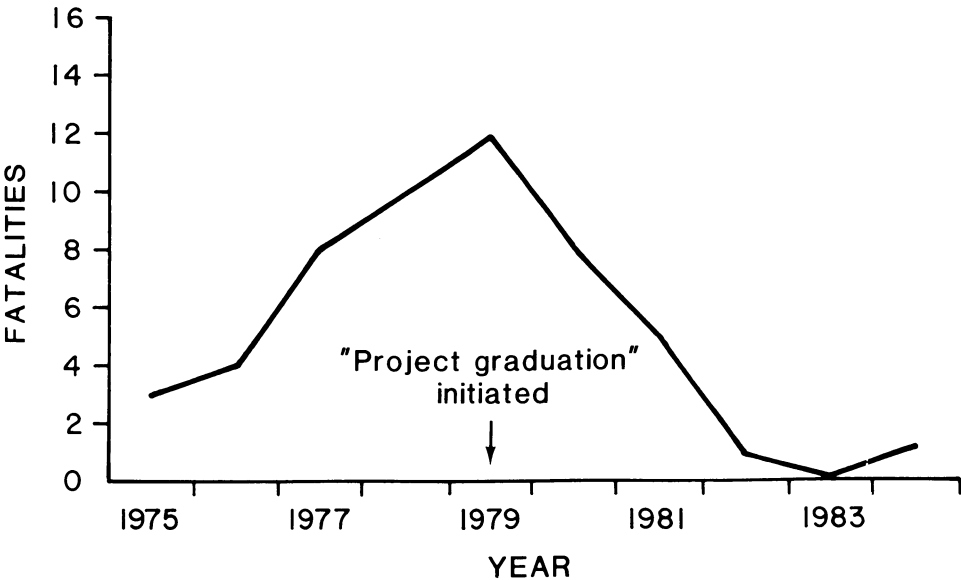
Perspectives in Disease Prevention and Health Promotion

Project Graduation — Maine

During the 1979 commencement period (May 15-June 30) in Maine, seven of the 12 deaths among teenagers that resulted from driving under the influence of alcohol occurred in the area of Oxford Hills. In response to this loss of life, a school-community coalition from Oxford Hills developed and implemented a program called "Project Graduation," a chemical-free graduation celebration, during the 1979-1980 school year. During Oxford Hills' 1980 commencement period, there were no fatalities, no alcohol or drug-related injuries, and no arrests for driving under the influence of alcohol.

The number of fatalities occurring among 15- to 19-year-old Maine residents during the graduation period that involved teenagers driving under the influence of alcohol decreased from 12 in 1979 to one in 1984, with an intermittent drop to zero in 1983 (Figure 1). During this period, the number of high schools participating in Project Graduation increased from 1 to 129. This statewide diffusion effort, stimulated by the Maine Department of Educational

FIGURE 1. Motor-vehicle-related fatalities among 15- to 19-year-old residents involving teenagers driving under influence of alcohol during graduation period — Maine, May 15-June 30, 1975-1984



Source: Maine Department of Educational and Cultural Services.

*Project Graduation — Continued*

and Cultural Services, Division of Alcohol and Drug Education Services, constitutes program adoption in 84.9% of Maine's high schools. In 1984, 79.1% of graduating seniors in project sites (68.3% of graduating seniors statewide) attended chemical-free commencement activities. The single fatality reported in 1984 did not occur in a Project Graduation site. Analysis of the fatalities in question for teens residing in areas where the program was in place, compared with teens who did not reside in those areas, revealed a significant difference (Mantel-Haenszel,  $p = 0.03$ ) favoring teens exposed to Project Graduation (Table 1).

*Reported by C Mowatt, J Isaly, M Thayer, Maine Div of Alcohol and Drug Education Svcs, Dept of Educational and Cultural Svcs, Augusta, E Miller, Div of Health Education, Bureau of Health, Maine Dept of Human Svcs; J Fell, National Center for Statistics and Analysis, National Highway Traffic Safety Administration; B Veal, Florida Informed Parents, Tallahassee; Program Svcs and Development Br, Div of Health Education, Center for Health Promotion and Education, CDC.*

**Editorial Note:** Nationally, teenagers have the highest rate of drinking drivers involved in fatal crashes for every 100 million vehicular miles driven—a rate of 2.9, compared with an average rate of 1.1 for all age groups. The National Highway Traffic Safety Administration (NHTSA) estimates that, in 1984, 4,200 teenagers died in alcohol-related crashes.

Although it is not possible to attribute the cause of the downward trend in Maine teen drinking and driving fatalities to the adoption of Project Graduation, evidence is sufficient to encourage public health support for the continued promotion of this important program and for more extensive efforts to determine those elements that can make the project more effective. On the basis of the results in Maine, the NHTSA has supported several national conferences to stimulate promotion of Project Graduation. In June 1984, 38 states had at least one Project Graduation site, and in May 1985, 19 states had designated a coordinator at the state level. In places where it is undertaken, Project Graduation is much more than an event that occurs on graduation night. It is a communitywide planning process that strives to create a caring, supportive environment and more open communication between youths and adults. At most sites, a team of teachers, students, and parents designs the chemical-free celebration and a variety of fund-raising activities. School officials, drug specialists, and community and business leaders provide guidance, support, and money for the celebration. Newspapers and radio and television stations work to increase community awareness of the issues. The result can be a powerful and positive force within the community and its institutions. For example,

**TABLE 1. Teen resident fatalities resulting from teenagers driving under the influence of alcohol, by project and nonproject sites — Maine, May 15-June 30, 1980-1984**

	1980	1981	1982	1983	1984	Total
No. graduating seniors in project sites	252	1,624	3,526	9,620	14,297	29,319
Teen resident fatalities in project sites	0	0	0	0	0	0
No. graduating seniors in nonproject sites	17,009	15,771	13,487	6,984	1,508	54,759
Teen resident fatalities in nonproject sites	8	5	1	0	1	15
Frequency in nonproject sites (rate/10,000)	4.7	3.2	0.7	0	6.6	2.7

Data compiled by Department of Educational and Cultural Services, Maine (April 1985);  $p = 0.03$ .

*Project Graduation — Continued*

during the 1985 graduation period, four counties in the Tampa Bay, Florida, area are planning chemical-free graduation celebrations. At least 24 high schools will participate.

Project Graduation emphasizes prudent decision-making about drinking, drug taking, and driving and endeavors to establish chemical-free celebrations as the norm. Details on how to implement the program are available from: Project Graduation, National Highway Traffic and Safety Administration, NTS-01, 400 7th Street, Northwest, Washington, D.C. 20590.

*Epidemiologic Notes and Reports***Human Rabies Acquired Outside the United States**

The third case of human rabies reported to CDC in 1984 was diagnosed in California in October 1984 in a 72-year-old Guatemalan citizen. The patient reported that, in an unprovoked attack in Guatemala in early June, she was bitten on her right ankle by a stray dog that could not be found for examination. On September 3, she first noted weakness of her right leg. She left Guatemala that day to visit her daughter in California. When she deplaned in California that evening, she was unable to walk without assistance. By September 6, she was unable to stand and was hospitalized.

At the time of admission, the patient was alert, communicative, and afebrile. She reported receiving shots at the time of her bite and was thought to have received rabies postexposure prophylaxis. The only abnormality detected on physical examination was right lower extremity weakness. Agitation and confusion developed on the night of admission. Computerized tomographic examination of her head was unremarkable. On September 9, a lumbar puncture revealed a cerebrospinal fluid white blood cell count of 6 lymphocytes per mm<sup>3</sup>, an elevated protein (65 mg/dl), and a normal glucose. Later that day, she developed aspiration pneumonia and required mechanical ventilation. Paralysis progressed to involve all extremities, and her mental status declined. Despite supportive care, she became comatose and died October 1.

At autopsy, because of the clinical course of progressive encephalitis, brain tissue was examined and found positive for rabies by direct fluorescent antibody testing. Questioning of family members revealed that, following the dog bite, the patient had received only local wound care and a single intramuscular injection (presumably tetanus toxoid). The delay in diagnosis necessitated administering postexposure prophylaxis to 179 persons exposed to the patient, including 12 family members.

*Adapted from California Morbidity (November 9, 1984); reported by Div of Viral Diseases, Center for Infectious Diseases, CDC.*

**Editorial Note:** Ten (43%) of the 23 human rabies cases reported to CDC from 1975 through 1984 were acquired outside the United States; these include six acquired by U.S. citizens living outside the United States and four acquired by non-U.S. citizens outside the United States and diagnosed in the United States. There were histories of probable exposure to rabies from a dog bite in eight of the 10 cases. In the eight cases, the development of rabies was attributable to: failure to seek treatment (three cases), postexposure therapy not recommended (two), delay in seeking treatment (one), failure to receive rabies immune globulin as part of post-exposure therapy (one), and misdiagnosis of the exposing animal (one).

All persons traveling to rabies-endemic areas outside the United States should be made aware of the risk of exposure to rabies and the importance of local wound treatment, medical

*Human Rabies — Continued*

advice, and rabies biologics. Persons traveling to developing countries where rabies control programs for domestic animals are not optimal should be offered preexposure prophylaxis if they plan to stay for more than 30 days (1). Every 2 years, persons on long-term international assignments in rabies-endemic areas who are at risk of an inapparent exposure to rabies or a delay in postexposure prophylaxis should be advised to have a booster or have their serum tested for rabies-neutralizing antibody and, if their titer is inadequate, have a booster. It should be emphasized that preexposure prophylaxis does not eliminate the need for prompt postexposure prophylaxis if an exposure to rabies occurs.

Rabies should be considered in any case of encephalitis or myelitis of unknown etiology, even in the absence of an exposure history, particularly in a person who has lived or traveled outside the United States.

In the United States, state health departments should be consulted for assistance in reviewing the techniques for diagnosing rabies in suspected rabid animals and the therapeutic measures received by any person exposed to rabies outside the United States. If assistance is needed outside the United States, a United States Embassy or consulate can be contacted.

*Reference*

1. ACIP. Rabies prevention—United States, 1984. MMWR 1984;33:393-408.

**TABLE I. Summary—cases of specified notifiable diseases, United States**

Disease	17th Week Ending			Cumulative, 17th Week Ending		
	Apr. 27, 1985	Apr. 28, 1984	Median 1980-1984	Apr. 27, 1985	Apr. 28, 1984	Median 1980-1984
Acquired Immunodeficiency Syndrome (AIDS)	191	96	N	2,231	1,192	N
Aseptic meningitis	81	64	66	1,149	1,293	1,293
Encephalitis: Primary (arthropod-borne & unsp.)	9	15	16	280	265	265
Post-infectious	5	1	1	45	32	32
Gonorrhea: Civilian	15,140	15,190	17,043	254,856	263,419	300,507
Military	449	433	439	5,934	6,657	8,709
Hepatitis: Type A	393	372	457	6,875	6,835	7,607
Type B	471	473	430	8,010	8,012	6,678
Non A, Non B	87	81	N	1,349	1,167	N
Unspecified	112	101	159	1,706	1,537	2,765
Legionellosis	14	7	N	176	159	N
Leprosy	7	9	6	114	71	71
Malaria	23	15	26	222	221	261
Measles: Total*	84	141	134	893	1,019	1,019
Indigenous	64	129	N	670	902	N
Imported	20	12	N	223	117	N
Meningococcal infections: Total	59	70	70	995	1,174	1,174
Civilian	58	70	70	993	1,172	1,172
Military	1	-	-	2	2	5
Mumps	79	69	123	1,357	1,225	1,831
Pertussis	20	33	33	411	684	362
Rubella (German measles)	13	58	80	136	230	886
Syphilis (Primary & Secondary): Civilian	561	586	609	8,113	9,290	9,838
Military	9	11	11	65	113	122
Toxic Shock syndrome	9	11	N	119	155	N
Tuberculosis	506	447	499	6,348	6,606	7,895
Tularemia	-	4	2	24	23	33
Typhoid fever	4	6	7	81	105	121
Typhus fever, tick-borne (RMSF)	4	8	10	18	38	36
Rabies, animal	104	98	192	1,504	1,565	1,944

**TABLE II. Notifiable diseases of low frequency, United States**

	Cum. 1985		Cum. 1985
Anthrax	-	Leptospirosis	8
Botulism: Foodborne (Ohio 1)	2	Plague	-
Infant (Ohio 1)	14	Poliomyelitis: Total	1
Other	-	Paralytic	1
Brucellosis (Calif. 2)	28	Psittacosis (Calif. 2)	44
Cholera	-	Rabies	-
Congenital rubella syndrome	-	Tetanus (Mass. 1, S.C. 1, Fla. 1, Hawaii 1)	19
Congenital syphilis, ages < 1 year	52	Trichinosis	28
Diphtheria	1	Typhus fever, flea-borne (endemic, murine)	3

\*Twenty of the 84 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

**TABLE III. Cases of specified notifiable diseases, United States, weeks ending  
April 27, 1985 and April 28, 1984 (17th Week)**

Reporting Area	AIDS	Aseptic Meningi- tis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel- losis	Leprosy
			Primary	Post-in- fectious			A	B	NA,NB	Unspeci- fied		
	Cum. 1985	1985	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1984	1985	1985	1985	1985	1985	Cum. 1985
UNITED STATES	2,231	81	280	45	254,856	263,419	393	471	87	112	14	114
NEW ENGLAND	66	6	7	-	7,852	7,753	10	54	2	6	-	3
Maine	3	-	-	-	310	289	3	-	-	-	-	-
N.H.	-	-	2	-	163	208	-	-	-	-	-	-
Vt.	-	-	-	-	81	123	2	-	-	-	-	-
Mass.	40	2	5	-	2,893	3,096	4	46	-	5	-	3
R.I.	4	4	-	-	571	500	-	3	-	-	-	-
Conn.	19	-	-	-	3,834	3,537	1	5	2	1	-	-
MID ATLANTIC	895	12	43	1	35,689	35,662	6	39	3	2	-	10
Upstate N.Y.	119	1	15	1	5,053	5,353	1	13	-	-	-	-
N.Y. City	606	-	3	-	16,159	15,486	-	2	-	-	-	10
N.J.	108	10	11	-	7,048	5,603	5	24	3	2	-	-
Pa.	62	1	14	-	7,429	9,220	-	-	-	-	-	-
E.N. CENTRAL	104	5	67	11	36,038	36,112	10	35	7	3	5	2
Ohio	23	1	26	4	9,457	9,354	2	16	-	1	3	2
Ind.	4	-	12	1	3,326	4,336	1	7	5	2	-	-
Ill.	43	-	7	4	9,726	8,173	-	-	-	-	-	-
Mich.	21	4	18	-	10,699	10,201	7	12	2	-	2	-
Wis.	13	-	4	2	2,830	4,048	-	-	-	-	-	-
W.N. CENTRAL	23	1	26	3	13,070	12,441	40	11	7	-	1	-
Minn.	4	-	11	1	1,904	1,795	27	-	4	-	1	-
Iowa	3	-	9	-	1,386	1,451	-	3	-	-	-	-
Mo.	13	-	-	-	6,016	5,855	2	4	-	-	-	-
N. Dak.	-	-	-	1	91	129	-	-	-	-	-	-
S. Dak.	-	1	-	-	239	340	9	2	2	-	-	-
Nebr.	-	-	1	-	1,304	864	-	1	-	-	-	-
Kans.	3	-	5	1	2,130	2,007	2	1	1	-	-	-
S. ATLANTIC	319	17	29	15	55,021	67,084	38	127	23	15	3	2
Del.	6	-	1	-	1,202	1,145	3	1	-	-	1	-
Md.	34	2	9	1	8,745	7,844	2	17	5	2	-	-
D.C.	35	-	-	-	4,655	4,863	-	3	-	-	-	-
Va.	17	6	4	4	5,867	6,362	11	35	6	2	-	-
W. Va.	1	-	2	-	774	795	1	6	-	-	1	-
N.C.	18	4	10	-	10,179	10,648	3	9	3	2	-	1
S.C.	2	-	3	-	7,102	6,343	-	9	-	-	-	-
Ga.	49	2	-	-	-	13,255	2	14	-	-	-	-
Fla.	157	3	-	10	16,497	15,829	16	33	9	9	1	1
E.S. CENTRAL	18	8	9	3	22,232	22,433	12	27	6	3	-	-
Ky.	7	8	3	-	2,449	2,751	7	10	1	-	-	-
Tenn.	1	-	4	-	8,792	9,112	3	15	4	3	-	-
Ala.	9	-	2	3	7,023	7,156	1	1	-	-	-	-
Miss.	1	-	-	-	3,968	3,414	1	1	1	-	-	-
W.S. CENTRAL	170	13	26	-	36,338	36,233	60	38	5	33	1	11
Ark.	2	-	1	-	3,440	3,184	-	-	-	-	-	-
La.	25	-	1	-	7,844	7,987	6	3	2	-	-	1
Okla.	2	1	9	-	3,698	3,865	7	4	-	1	1	-
Tex.	141	12	15	-	21,356	21,197	47	31	3	32	-	10
MOUNTAIN	34	7	9	3	8,421	8,051	42	26	11	12	2	1
Mont.	-	-	-	-	254	363	-	-	-	1	-	-
Idaho	-	-	-	-	278	377	2	-	1	-	-	-
Wyo.	-	-	-	-	211	243	-	1	-	-	1	-
Colo.	12	4	3	-	2,571	2,356	7	5	1	8	-	-
N. Mex.	4	-	-	-	991	926	-	4	3	-	-	-
Ariz.	13	3	1	-	2,462	2,049	10	10	6	3	-	-
Utah	2	-	5	3	337	447	9	5	2	-	1	-
Nev.	3	-	-	-	1,317	1,290	10	2	1	-	-	1
PACIFIC	602	12	64	9	40,195	37,650	175	114	23	38	2	85
Wash.	33	-	3	-	2,661	2,733	7	7	2	-	-	12
Oreg.	10	-	-	-	2,036	2,119	28	10	2	1	-	2
Calif.	544	12	61	9	33,886	31,203	136	94	19	37	2	64
Alaska	2	-	-	-	984	958	1	2	-	-	-	-
Hawaii	13	-	-	-	628	637	3	1	-	-	-	7
Guam	-	U	-	-	23	92	U	U	U	U	U	-
P.R.	27	-	3	1	1,263	1,121	4	19	-	4	-	2
V.I.	1	U	-	-	130	145	U	U	U	U	U	-
Pac. Trust Terr.	-	U	-	-	-	-	U	U	U	U	U	-

N. Not notifiable

U. Unavailable

**TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending  
April 27, 1985 and April 28, 1984 (17th Week)**

Reporting Area	Malaria	Measles (Rubeola)					Menin- gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984	Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984	1985	Cum. 1985	Cum. 1984
UNITED STATES	222	64	670	20	223	1,019	995	79	1,357	20	411	684	13	136	230
NEW ENGLAND	10	8	10	10	59	37	42	-	28	-	21	12	-	4	11
Maine	-	-	-	-	-	-	1	-	3	-	2	-	-	-	1
N.H.	-	-	-	-	-	11	5	-	5	-	11	3	-	1	-
Vt.	-	-	-	-	-	2	6	-	2	-	2	5	-	-	-
Mass.	7	8	10	10 †	58	22	9	-	15	-	3	3	-	3	10
R.I.	1	-	-	-	-	-	6	-	2	-	1	1	-	-	-
Conn.	2	-	-	-	1	2	15	-	1	-	2	-	-	-	-
MID ATLANTIC	37	6	54	1	12	40	172	9	146	2	46	41	4	35	54
Upstate N.Y.	14	-	27	-	2	5	76	2	86	1	21	23	-	8	40
N.Y. City	10	4	19	-	5	26	22	2	14	1	8	1	3	10	7
N.J.	4	-	2	1 †	5	5	28	3	17	-	1	3	1	5	7
Pa.	9	2	6	-	-	4	46	2	29	-	16	14	-	12	-
E.N. CENTRAL	10	-	146	-	94	404	171	27	588	-	52	220	-	8	39
Ohio	2	-	-	-	13	2	59	1	171	-	13	34	-	-	2
Ind.	1	-	-	-	1	3	26	3	24	-	11	150	-	-	1
Ill.	-	-	74	-	66	134	33	6	102	-	9	15	-	2	21
Mich.	7	-	34	-	14	258	38	16	239	-	7	11	-	5	8
Wis.	-	-	38	-	-	7	15	1	52	-	12	10	-	1	7
W.N. CENTRAL	5	-	1	-	4	1	43	2	43	6	43	66	-	7	17
Minn.	1	-	-	-	2	1	11	-	1	-	11	4	-	-	1
Iowa	1	-	-	-	-	-	7	1	7	1	3	3	-	-	-
Mo.	1	-	-	-	2	-	18	1	6	-	8	12	-	-	-
N. Dak.	1	-	-	-	-	-	-	-	1	-	6	-	-	-	3
S. Dak.	1	-	-	-	-	-	1	-	-	-	-	1	-	-	-
Nebr.	-	-	-	-	-	-	2	-	-	-	-	2	-	-	-
Kans.	-	-	1	-	-	-	4	-	28	5	15	44	-	7	13
S. ATLANTIC	27	8	109	1	5	7	196	4	106	3	93	55	5	16	16
Del.	-	-	-	-	-	-	4	-	1	-	-	-	-	-	-
Md.	7	5	9	1 †	3	-	22	1	13	-	22	3	-	1	1
D.C.	3	-	-	-	1	-	6	-	-	-	-	-	-	-	-
Va.	6	-	11	-	1	2	33	1	16	-	3	7	-	-	-
W. Va.	1	1	3	-	-	-	4	1	33	-	-	6	2	2	-
N.C.	2	-	-	-	-	-	28	-	7	-	7	17	-	-	-
S.C.	-	-	-	-	-	-	19	-	5	-	-	2	-	2	-
Ga.	1	-	8	-	-	-	27	-	12	1	37	5	-	4	2
Fla.	7	2	78	-	-	5	53	1	19	2	24	15	3	7	13
E.S. CENTRAL	3	-	-	-	-	3	50	3	10	-	4	3	-	1	5
Ky.	1	-	-	-	-	1	3	-	1	-	1	1	-	1	1
Tenn.	-	-	-	-	-	2	19	3	8	-	1	2	-	-	-
Ala.	2	-	-	-	-	-	14	-	-	-	2	-	-	-	1
Miss.	-	-	-	-	-	-	14	-	1	-	-	-	-	-	3
W.S. CENTRAL	14	12	44	5	5	161	86	9	140	3	35	138	1	14	5
Ark.	-	-	-	-	-	-	9	-	3	-	8	9	-	1	2
La.	-	-	1	-	-	-	14	-	2	-	2	3	-	-	-
Okla.	-	-	-	-	-	4	14	N	N	3	25	117	-	-	-
Tex.	14	12	43	5 †	5	157	49	9	135	-	-	9	1	13	3
MOUNTAIN	9	26	233	2	23	113	54	12	116	1	22	53	-	3	7
Mont.	-	10	116	-	17	-	3	-	4	-	3	16	-	-	-
Idaho	-	-	-	-	1	-	-	-	4	-	-	1	-	1	1
Wyo.	-	-	-	-	-	-	3	-	2	-	-	3	-	-	-
Colo.	3	-	-	2 †	5	-	15	3	14	-	8	17	-	-	-
N. Mex.	4	-	-	-	-	86	8	N	N	-	3	5	-	1	-
Ariz.	1	16	117	-	-	-	16	3	51	1	4	8	-	1	-
Utah	-	-	-	-	-	27	7	-	2	-	4	1	-	-	6
Nev.	1	-	-	-	-	-	2	6	39	-	-	2	-	-	-
PACIFIC	107	4	73	1	21	253	181	13	180	5	95	96	3	48	76
Wash.	9	-	1	-	-	64	32	-	11	2	15	11	-	-	1
Oreg.	4	1	3	-	-	-	20	N	N	-	16	7	-	2	-
Calif.	80	3	66	1 †	17	187	124	13	158	3	60	28	2	34	73
Alaska	1	-	-	-	-	-	4	-	2	-	1	-	-	-	-
Hawaii	13	-	3	-	4	2	1	-	9	-	3	50	1	12	2
Guam	-	U	10	U	-	84	-	U	1	U	-	-	U	1	1
P.R.	-	-	40	-	-	-	6	7	58	-	1	-	1	6	4
V.I.	-	U	4	U	5	-	-	U	3	U	-	-	U	-	-
Pac. Trust Terr.	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-

\*For measles only, imported cases includes both out-of-state and international importations.

N Not notifiable    U Unavailable    † International    § Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending  
April 27, 1985 and April 28, 1984 (17th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic- shock Syndrome	Tuberculosis		Tula- remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1985	Cum. 1984	1985	Cum. 1985	Cum. 1984	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1985
UNITED STATES	8,113	9,290	9	6,348	6,606	24	81	18 + 4	1,504
NEW ENGLAND	171	206	2	215	186	-	6	-	-
Maine	5	1	2	16	9	-	-	-	-
N.H.	-	2	-	-	12	-	-	-	-
Vt.	-	1	-	3	2	-	-	-	-
Mass.	96	127	-	132	102	-	5	-	-
R.I.	6	8	-	21	17	-	-	-	-
Conn.	64	67	-	43	44	-	1	-	-
MID ATLANTIC	1,078	1,273	1	1,190	1,228	1	14	-	129
Upstate N.Y.	77	109	-	189	198	-	6	-	29
N.Y. City	671	755	-	620	501	1	3	-	-
N.J.	229	233	1	116	249	-	4	-	2
Pa.	101	176	-	265	280	-	1	-	98
E. N. CENTRAL	374	400	1	799	878	-	9	-	35
Ohio	40	84	1	141	182	-	2	-	8
Ind.	32	52	-	90	94	-	3	-	5
Ill.	192	134	-	346	362	-	1	-	7
Mich.	91	99	-	179	191	-	2	-	-
Wis.	19	31	-	43	49	-	1	-	15
W. N. CENTRAL	85	151	1	167	170	7	2	-	222
Minn.	23	32	1	34	27	1	2	-	31
Iowa	12	10	-	27	28	-	-	-	58
Mo.	32	89	-	73	75	5	-	-	16
N. Dak.	-	-	-	2	5	-	-	-	25
S. Dak.	4	-	-	7	5	-	-	-	60
Nebr.	5	5	-	8	9	1	-	-	13
Kans.	9	15	-	16	21	-	-	-	19
S. ATLANTIC	2,020	2,853	1	1,284	1,411	5	9	12 + 4	439
Del.	16	9	-	10	16	1	-	-	-
Md.	134	186	1	114	154	-	2	2 2	233
D.C.	118	98	-	60	42	-	-	-	-
Va.	111	143	-	105	131	-	1	-	63
W. Va.	4	8	-	28	53	-	-	-	5
N.C.	237	296	-	163	226	4	1	7 1	-
S.C.	254	274	-	150	155	-	-	2 1	22
Ga.	-	486	-	185	201	-	-	-	62
Fla.	1,146	1,353	-	469	433	-	5	1	54
E. S. CENTRAL	773	556	-	553	616	2	2	4	82
Ky.	31	30	-	91	134	-	-	-	12
Tenn.	207	147	-	170	196	2	-	1	20
Ala.	236	191	-	197	203	-	2	3	50
Miss.	299	188	-	95	83	-	-	-	-
W. S. CENTRAL	2,062	2,216	-	692	690	2	4	2	306
Ark.	105	74	-	75	72	1	-	-	55
La.	352	416	-	96	87	-	-	-	4
Okla.	60	66	-	75	67	1	-	2	38
Tex.	1,545	1,660	-	446	464	-	4	-	209
MOUNTAIN	256	221	2	153	151	5	4	-	113
Mont.	1	-	-	19	8	1	-	-	60
Idaho	2	9	-	4	9	-	-	-	-
Wyo.	4	3	-	3	-	-	-	-	3
Colo.	62	49	-	18	11	-	3	-	-
N. Mex.	36	29	-	27	33	2	1	-	1
Ariz.	136	92	2	71	68	-	-	-	49
Utah	3	6	-	5	10	2	-	-	-
Nev.	12	33	-	6	12	-	-	-	-
PACIFIC	1,294	1,414	1	1,295	1,276	2	31	-	178
Wash.	35	48	-	60	67	-	-	-	1
Oreg.	31	41	1	44	53	1	-	-	-
Calif.	1,201	1,296	-	1,087	1,069	1	30	-	177
Alaska	1	3	-	45	22	-	-	-	-
Hawaii	26	26	-	59	65	-	1	-	-
Guam	2	-	U	5	19	-	-	-	-
P.R.	302	283	-	99	127	-	1	-	11
V.I.	1	6	U	1	3	-	-	-	-
Pac. Trust Terr.	-	-	U	-	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,\* week ending  
April 27, 1985 (17th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total	Reporting Area	All Causes, By Age (Years)						P&I*** Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	659	465	135	27	18	14	55	S. ATLANTIC	1,318	820	322	92	37	44	59
Boston, Mass.	185	114	41	9	10	11	20	Atlanta, Ga.	153	90	44	16	3	-	5
Bridgeport, Conn.	39	32	5	2	-	-	5	Baltimore, Md.	214	137	49	10	7	11	6
Cambridge, Mass.	22	16	4	2	-	-	1	Charlotte, N.C.	76	44	19	3	2	8	5
Fall River, Mass.	27	20	7	-	-	-	1	Jacksonville, Fla.	123	73	36	8	2	4	7
Hartford, Conn.	48	29	16	1	2	-	3	Miami, Fla.	102	58	34	5	1	4	-
Lowell, Mass.	37	29	6	2	-	-	3	Norfolk, Va.	45	24	11	6	1	3	4
Lynn, Mass.	21	16	5	-	-	-	-	Richmond, Va.	79	48	22	7	1	1	9
New Bedford, Mass.	23	20	2	1	-	-	-	Savannah, Ga.	42	31	8	-	2	1	2
New Haven, Conn.	35	21	8	4	1	1	3	St. Petersburg, Fla.	112	83	24	1	2	2	6
Providence, R.I.	70	51	14	1	2	2	8	Tampa, Fla.	89	57	17	4	3	5	9
Somerville, Mass.	12	11	1	-	-	-	-	Washington, D.C.	253	153	55	29	11	5	6
Springfield, Mass.	35	26	6	2	1	-	1	Wilmington, Del.	30	22	3	3	2	-	-
Waterbury, Conn.	37	29	6	1	1	-	5								
Worcester, Mass.	68	51	14	2	1	-	5	E.S. CENTRAL	738	451	184	45	22	36	39
								Birmingham, Ala.	114	59	33	11	3	8	3
MID ATLANTIC	2,523	1,645	543	214	59	62	117	Chattanooga, Tenn.	62	43	15	1	1	2	4
Albany, N.Y.	49	30	11	2	4	2	1	Knoxville, Tenn.	74	48	19	4	1	2	8
Allentown, Pa.	20	14	6	-	-	-	-	Louisville, Ky.	135	77	38	6	4	10	6
Buffalo, N.Y.	115	78	18	12	2	5	4	Memphis, Tenn.	110	78	23	6	2	1	9
Camden, N.J.	34	22	9	1	1	1	1	Mobile, Ala.	77	40	23	3	5	6	3
Elizabeth, N.J.	19	11	5	2	1	-	-	Montgomery, Ala.	36	30	3	1	2	-	2
Erie, Pa.†	42	28	9	3	2	-	2	Nashville, Tenn.	130	76	30	13	4	7	4
Jersey City, N.J.	48	29	10	5	1	3	5								
N.Y. City, N.Y.	1,349	869	286	136	28	30	60	W.S. CENTRAL	1,308	791	322	108	41	46	52
Newark, N.J.	74	35	18	12	3	6	-	Austin, Tex.	47	29	4	8	3	3	4
Paterson, N.J.	30	22	4	4	-	-	-	Baton Rouge, La.	22	10	7	2	2	1	-
Philadelphia, Pa.	296	192	75	11	11	7	18	Corpus Christi, Tex.	50	31	14	5	-	-	-
Pittsburgh, Pa.†	66	44	18	4	-	-	2	Dallas, Tex.	227	121	63	23	9	11	4
Reading, Pa.	35	26	7	1	1	-	5	El Paso, Tex.	76	49	16	6	-	5	6
Rochester, N.Y.	112	76	26	5	2	3	6	Fort Worth, Tex.	91	58	21	8	2	2	5
Schenectady, N.Y.	36	31	4	1	-	-	2	Houston, Tex.	251	141	68	21	14	7	14
Scrannton, Pa.†	33	22	7	3	-	1	2	Little Rock, Ark.	120	65	35	7	4	9	6
Syracuse, N.Y.	85	57	17	5	3	3	2	New Orleans, La.	123	79	30	10	2	2	-
Trenton, N.J.	36	24	7	4	-	1	1	San Antonio, Tex.	136	95	28	9	3	1	7
Utica, N.Y.	21	15	5	1	-	-	1	Shreveport, La.	58	38	15	4	-	1	2
Yonkers, N.Y.	23	20	1	2	-	-	1	Tulsa, Okla.	107	75	21	5	2	4	4
E.N. CENTRAL	2,291	1,584	418	130	66	92	103	MOUNTAIN	676	435	148	48	24	21	36
Akron, Ohio	67	50	11	4	2	-	3	Albuquerque, N.Mex.‡	76	71	-	1	3	1	4
Canton, Ohio	45	35	10	-	-	-	-	Colorado Springs, Colo.	45	27	11	3	4	-	4
Chicago, Ill.‡	553	462	11	26	16	37	16	Denver, Colo.	116	68	27	13	4	4	7
Cincinnati, Ohio	125	74	35	6	4	6	19	Las Vegas, Nev.	81	50	24	6	1	-	1
Cleveland, Ohio	170	88	61	9	1	11	6	Ogden, Utah	16	14	2	-	-	-	2
Columbus, Ohio	126	81	25	11	5	4	6	Phoenix, Ariz.	167	100	38	15	5	9	3
Dayton, Ohio	114	76	28	4	3	3	5	Pueblo, Colo.	28	15	9	-	2	2	3
Detroit, Mich.	255	142	66	28	14	5	6	Salt Lake City, Utah	42	19	13	5	3	2	1
Evansville, Ind.	56	40	12	3	-	1	-	Tucson, Ariz.	105	71	24	5	2	3	11
Fort Wayne, Ind.	75	50	11	7	5	2	4								
Gary, Ind.	23	16	4	2	1	-	-	PACIFIC	1,797	1,176	355	141	60	59	97
Grand Rapids, Mich.	73	48	14	3	3	5	6	Berkeley, Calif.	15	12	-	3	-	-	-
Indianapolis, Ind.	154	99	37	9	4	5	2	Fresno, Calif.	51	29	13	5	4	-	7
Madison, Wis.	28	18	5	4	1	-	2	Glendale, Calif.	18	15	3	-	-	-	3
Milwaukee, Wis.	143	106	28	4	2	3	7	Honolulu, Hawaii	63	46	8	3	2	4	4
Peoria, Ill.	45	29	9	-	1	6	4	Long Beach, Calif.	89	51	26	6	3	3	3
Rockford, Ill.	35	26	7	-	1	1	1	Los Angeles, Calif.	444	281	85	51	19	2	12
South Bend, Ind.	50	44	5	1	-	-	2	Oakland, Calif.	75	53	14	4	1	3	4
Toledo, Ohio	98	62	24	6	3	3	5	Pasadena, Calif.	29	24	1	3	-	1	4
Youngstown, Ohio	56	38	15	3	-	-	2	Portland, Oreg.	143	98	28	4	5	8	5
								Sacramento, Calif.	127	85	27	10	2	3	10
W.N. CENTRAL	784	540	143	47	23	31	40	San Diego, Calif.	131	75	29	7	10	10	15
Des Moines, Iowa	65	48	10	4	3	-	5	San Francisco, Calif.	153	94	33	16	1	9	5
Duluth, Minn.	34	27	4	1	1	1	2	San Jose, Calif.	187	122	35	16	5	9	9
Kansas City, Kans.	28	19	5	-	2	2	2	Seattle, Wash.	165	117	32	8	6	2	10
Kansas City, Mo.	133	91	28	9	2	3	9	Spokane, Wash.	72	48	14	3	2	5	5
Lincoln, Nebr.	45	34	5	4	1	1	5	Tacoma, Wash.	35	26	7	2	-	-	1
Minneapolis, Minn.	81	53	17	4	2	5	1								
Omaha, Nebr.	106	73	21	6	1	5	5	TOTAL	12,094 <sup>††</sup>	7,907	2,570	852	350	405	598
St. Louis, Mo.	153	103	26	12	5	7	4								
St. Paul, Minn.	53	36	11	3	3	-	1								
Wichita, Kans.	86	56	16	4	3	7	6								

\* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†† Pneumonia and influenza.

‡ Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††† Total includes unknown ages.

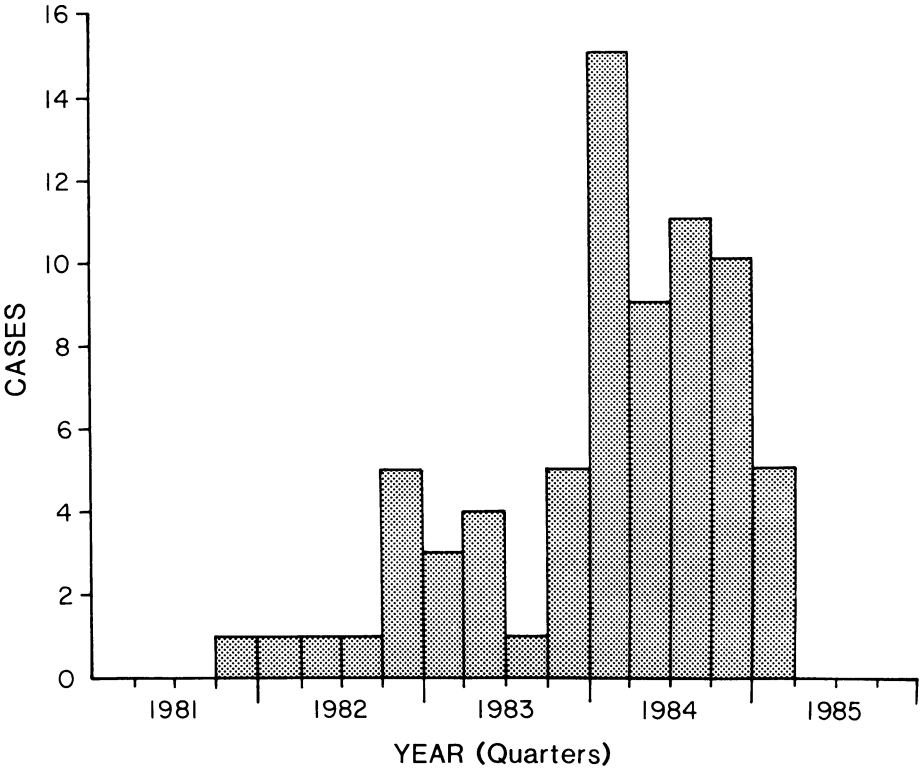
§ Data not available. Figures are estimates based on average of past 4 weeks.

Current Trends

**Changing Patterns of Acquired Immunodeficiency Syndrome in Hemophilia Patients — United States**

The pattern of hemophilia-associated AIDS appears to be changing in that the number of cases may be stabilizing or declining, and the characteristics of new cases appear to be changing. As of April 1, 1985, CDC has received reports of 73 cases of hemophilia-associated acquired immunodeficiency syndrome (AIDS) among U.S. patients. The first case was diagnosed in 1981; eight cases were diagnosed in 1982; 13, in 1983; 45, in 1984; and six, thus far in 1985 (Figure 2). Four of these 73 had known risk factors for AIDS other than a coagulation disorder requiring treatment with commercial factor concentrates or cryoprecipitate. Patients with severe hemophilia A (hereditary factor VIII deficiency) continue to account for the majority (52 [71%]) of hemophilia-associated AIDS cases. Patients with mild or moderate hemophilia A account for an additional 13 (18%) cases. The remaining cases consist of three patients with hemophilia B (hereditary factor IX deficiency), three with von Willebrand's disease, one with an acquired inhibitor to factor VIII, and one with factor V deficiency. These patients resided in 27 different states. Cases reported per state ranged from one to nine (median two).

**FIGURE 2. Hemophilia-associated acquired immunodeficiency syndrome, by year — United States, 1981-1985**



*AIDS in Hemophilia Patients — Continued*

Ten patients had no documented use of blood products other than factor concentrates in the 5 years preceding their diagnoses. One patient with von Willebrand's disease, diagnosed in January 1985, had no documented use of blood products other than cryoprecipitate in the 3 years preceding diagnosis.

Sera from 29 (40%) of the 73 cases were obtained and tested by the Western blot method (1) for antibody to human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV); 22 (76%) of the 29 were antibody-positive.

Of the opportunistic infections considered by CDC to be indicative of underlying cellular immune deficiency, *Pneumocystis carinii* pneumonia (PCP) remains the most common infection diagnosed in hemophilia-associated AIDS. Sixty-one (84%) of 73 patients had PCP alone or in combination with one or more other opportunistic infections.

Thirty-eight (52%) of the 73 hemophilia patients with AIDS have died. Seven (20%) of those still alive have survived 1 year or more since diagnosis; one (3%) has survived longer than 2 years.

Surveillance indicates the characteristics of recently diagnosed hemophilia-associated AIDS cases may be changing, and the number of new cases diagnosed by quarter may be stabilizing in this population. Ten of the 23 patients diagnosed since August 1, 1984, have disorders other than severe hemophilia A. This represents a change in proportion from earlier diagnosed cases (10 of 50 [ $p = 0.05$ ]). During 1984, more cases of hemophilia-associated AIDS were diagnosed than in all previous years of surveillance. However, unlike the epidemic pattern for all AIDS, the number of hemophilia-associated AIDS cases in 1984 has not increased in each quarter (Figure 2). It is possible that a significant number of hemophilia-associated AIDS cases not yet reported to CDC have already been diagnosed at some time in 1984, and the temporal distribution of cases is subject to change with receipt of reports of such cases. However, preliminary results from a simulation of 1985 hemophilia/AIDS reporting indicate that the expected number and distribution of cases would not sufficiently change the 1984 hemophilia-AIDS epidemic pattern.

*Reported by Div of Host Factors, AIDS Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.*

**Editorial Note:** HTLV-III/LAV has been implicated as the causal agent of AIDS (2-5), and in the hemophilia population, commercial factor concentrates are suspected as the vehicle for transmission of the virus (6-8). Recently, exposure to HTLV-III/LAV through use of cryoprecipitate has been documented in studies of the seroprevalence (two of six tested) (9) and seroconversion (two of 11 seroconverting during a 1-year period) (10) in hemophilia patients using this product exclusively. The development of AIDS in three patients with von Willebrand's disease, one of whom had no documented blood product exposure other than cryoprecipitate and no other risk factor for AIDS, is further strong evidence to consider chronic use of cryoprecipitate a definite risk factor for AIDS. This may be especially true for those who are exposed to multiple donors (more than 80 per year). The magnitude of this risk may depend on geographic locality.

Trends in both the number and characteristics of recently reported hemophilia-associated AIDS appear to be changing. Patients with mild or moderate hemophilia and those with von Willebrand's disease tend to use significantly less clotting factor products in their disease therapy than do those with severe hemophilia and are more likely to be treated with products other than commercial factor concentrates. The recent increase in AIDS cases reported among persons with milder hemophilia may reflect earlier exposure of persons with severe hemophilia A to HTLV-III/LAV than of those with mild or moderate hemophilia or von Willebrand's disease. Continuous surveillance will be needed to monitor these trends. Physicians and other health-

*AIDS in Hemophilia Patients — Continued*

care personnel are encouraged to report suspected AIDS cases to CDC through their local or state health departments.

*References*

1. Tsang VC, Peralta JM, Simons AR. Enzyme-linked immunoelectrotransfer blot techniques (EITB) for studying the specificities of antigens and antibodies separated by gel electrophoresis. *Methods Enzymol* 1983;92:377-91.
2. Popovic M, Sarngadharan MG, Read E, Gallo RC. Detection, isolation, and continuous production of cytopathic retroviruses (HTLV-III) from patients with AIDS and pre-AIDS. *Science* 1984;224:497-500.
3. Sarngadharan MG, Popovic M, Bruch L, Schüpbach J, Gallo RC. Antibodies reactive with human T-lymphotropic retroviruses (HTLV-III) in the serum of patients with AIDS. *Science* 1984;224:506-8.
4. Gallo RC, Salahuddin SZ, Popovic M, et al. Frequent detection and isolation of cytopathic retroviruses (HTLV-III) from patients with AIDS and at risk for AIDS. *Science* 1984;224:500-3.
5. CDC. Antibodies to a retrovirus etiologically associated with acquired immunodeficiency syndrome (AIDS) in populations with increased incidences of the syndrome. *MMWR* 1984;33:377-9.
6. CDC. Update: acquired immunodeficiency syndrome (AIDS) in persons with hemophilia. *MMWR* 1984;33:589-91.
7. Ramsey RB, Palmer EL, McDougal JS, et al. Antibody to lymphadenopathy-associated virus in haemophiliacs with and without AIDS [letter]. *Lancet* 1984;II:397-8.
8. Jason J, McDougal JS, Holman RC, et al. Lymphadenopathy-associated virus (LAV) antibody and its association with the immune status and factor concentrate usage of persons with hemophilia. *JAMA* (in press).
9. Koerper MA, Kaminsky LS, Levy JA. Differential prevalence of antibody to AIDS-associated retrovirus in haemophiliacs treated with factor VIII concentrate versus cryoprecipitate: recovery of infectious virus [letter]. *Lancet* 1985;I:275.
10. McGrady G, Gjerset G, Kennedy S. Risk of exposure to HTLV-III/LAV and type of clotting factor used in hemophilia. Atlanta, Georgia: International Conference on AIDS, April 16, 1985.

*Epidemiologic Notes and Reports***Reported Measles Cases — United States, Past 4 Weeks**

The following states have reported measles during the past 4 weeks: Arizona, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Montana, New Jersey, upstate New York, Ohio, Oregon, Pennsylvania, Texas, Virginia, West Virginia, and Wisconsin; New York City has also reported measles.

**Erratum: Vol. 34, No. 16**

- p. 228. In the article, "Rubella in Colleges — United States, 1983-1984," the second-last sentence of the last full paragraph on page 230 should read: Preliminary findings suggested that as few as 16% of the 1,861 colleges assessed have requirements for measles and/or rubella immunity as a condition of attendance.

The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

Director, Centers for Disease Control  
James O. Mason, M.D., Dr.P.H.  
Director, Epidemiology Program Office  
Carl W. Tyler, Jr., M.D.

Editor  
Michael B. Gregg, M.D.  
Assistant Editor  
Karen L. Foster, M.A.

U.S. Government Printing Office: 1985-746-149/10051 Region IV

**DEPARTMENT OF  
HEALTH & HUMAN SERVICES**

Public Health Service  
Centers for Disease Control  
Atlanta GA 30333

**Official Business**

Penalty for Private Use \$300



Postage and Fees Paid  
U.S. Dept. of H.H.S.  
HHS 396

X

S \*HCRH NEWV75 8129  
DR VERNE F NEWHOUSE  
VIROLOGY DIVISION  
CID  
7-B14